ABSTRACT OF THE DISCLOSURE

Several embodiments of an interleaved generalized convolutional encoder system and method are provided for communicating data over a transmission path in order to inhibit distortion caused by impulse noise or other correlated noise and enhance

5   transmission rate of data communications. The encoder system is designed to introduce a variable delay to the convolutional encoder. The variable delay effectively spreads correlated noise over a variable number of symbols in time. Correlated noise that is spread over time allows for better error correction encoding.